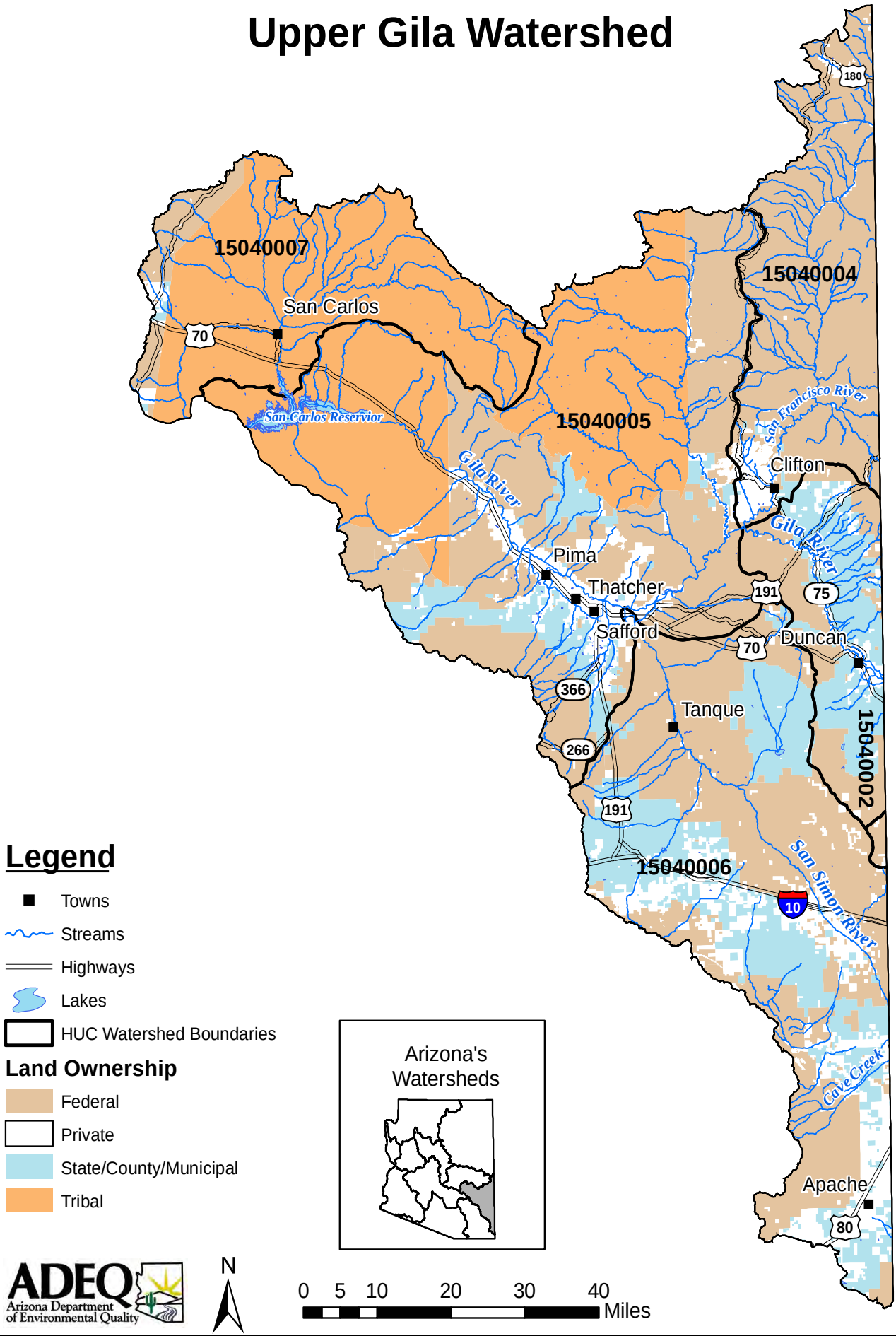
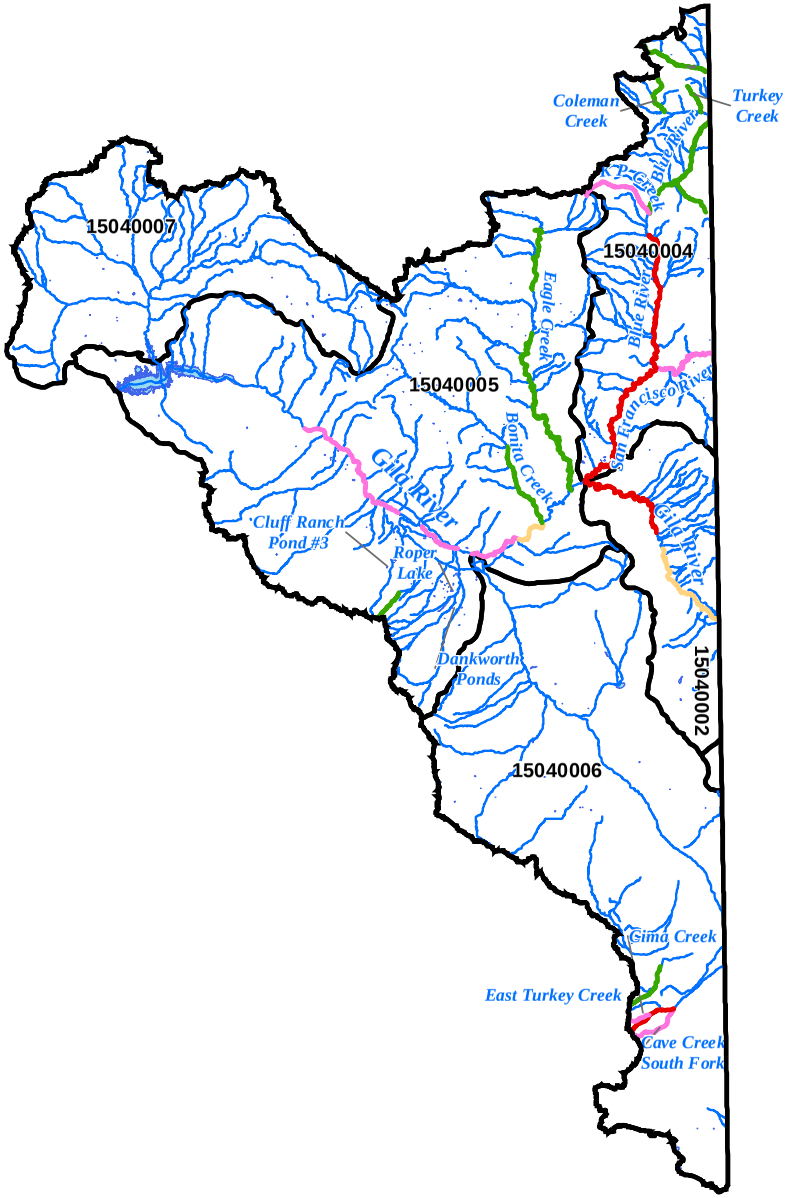
Upper Gila Watershed



Upper Gila Watershed
2012/2014 Assessment for Streams and Lakes



0 40 Miles

Legend

Assessed Lakes - 2012

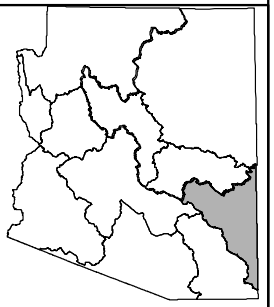
ADEQ and EPA Listings

- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- HUC Watershed Boundaries

Assessed Streams - 2012

ADEQ and EPA Listings

- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- Lakes
- Streams

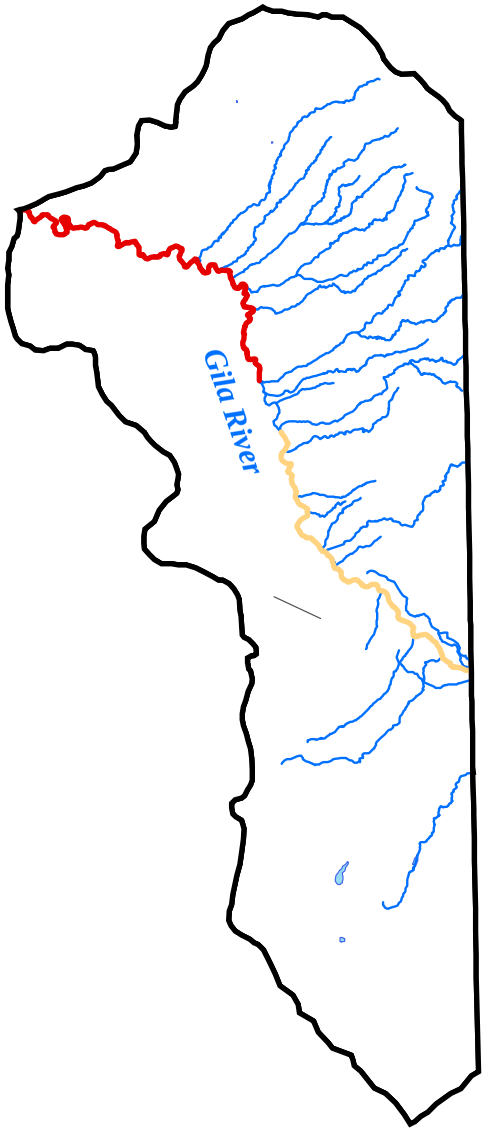


See Individual HUC Printouts for Waters not Labeled

N

ADEQ Arizona Department of Environmental Quality

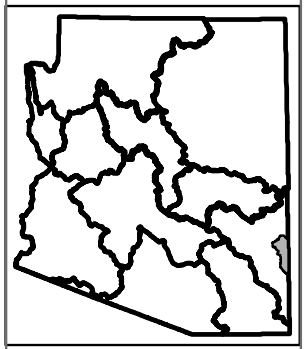
Upper Gila Watershed
HUC 15040002
2012/2014 Assessment for Streams and Lakes



Legend

Assessed Streams - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- HUC Watershed Boundaries
- Lakes
- Streams

Assessed Lakes - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired



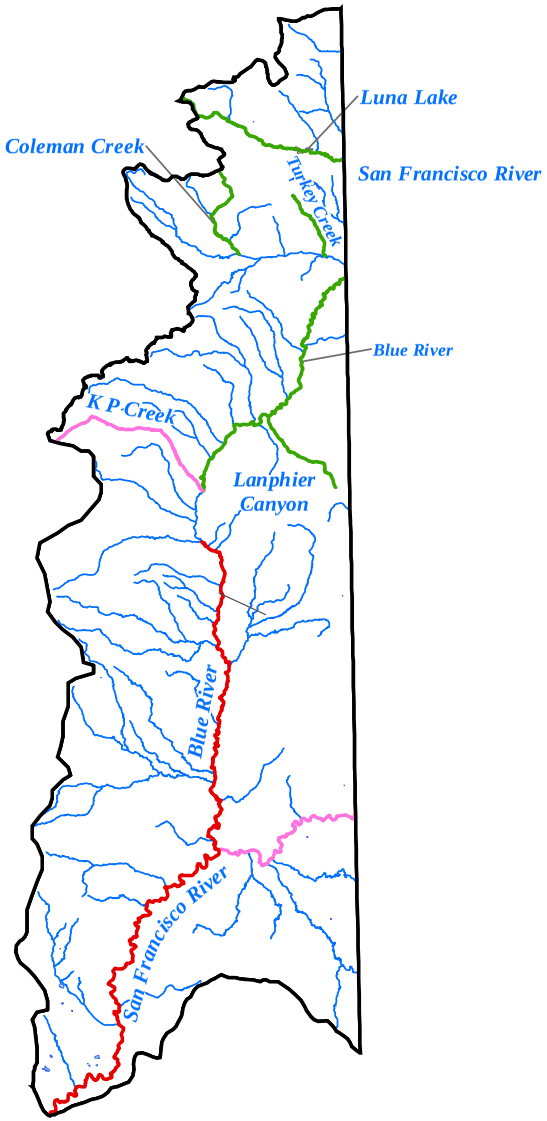
N

ADEQ Arizona Department of Environmental Quality

0 14 Miles

upper gila

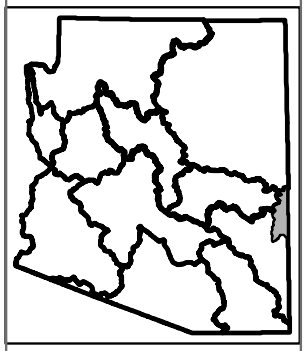
Upper Gila Watershed
HUC 15040004
2012/2014 Assessment for Streams and Lakes



Legend

Assessed Streams - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- HUC Watershed Boundaries
- Lakes
- Streams

Assessed Lakes - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired

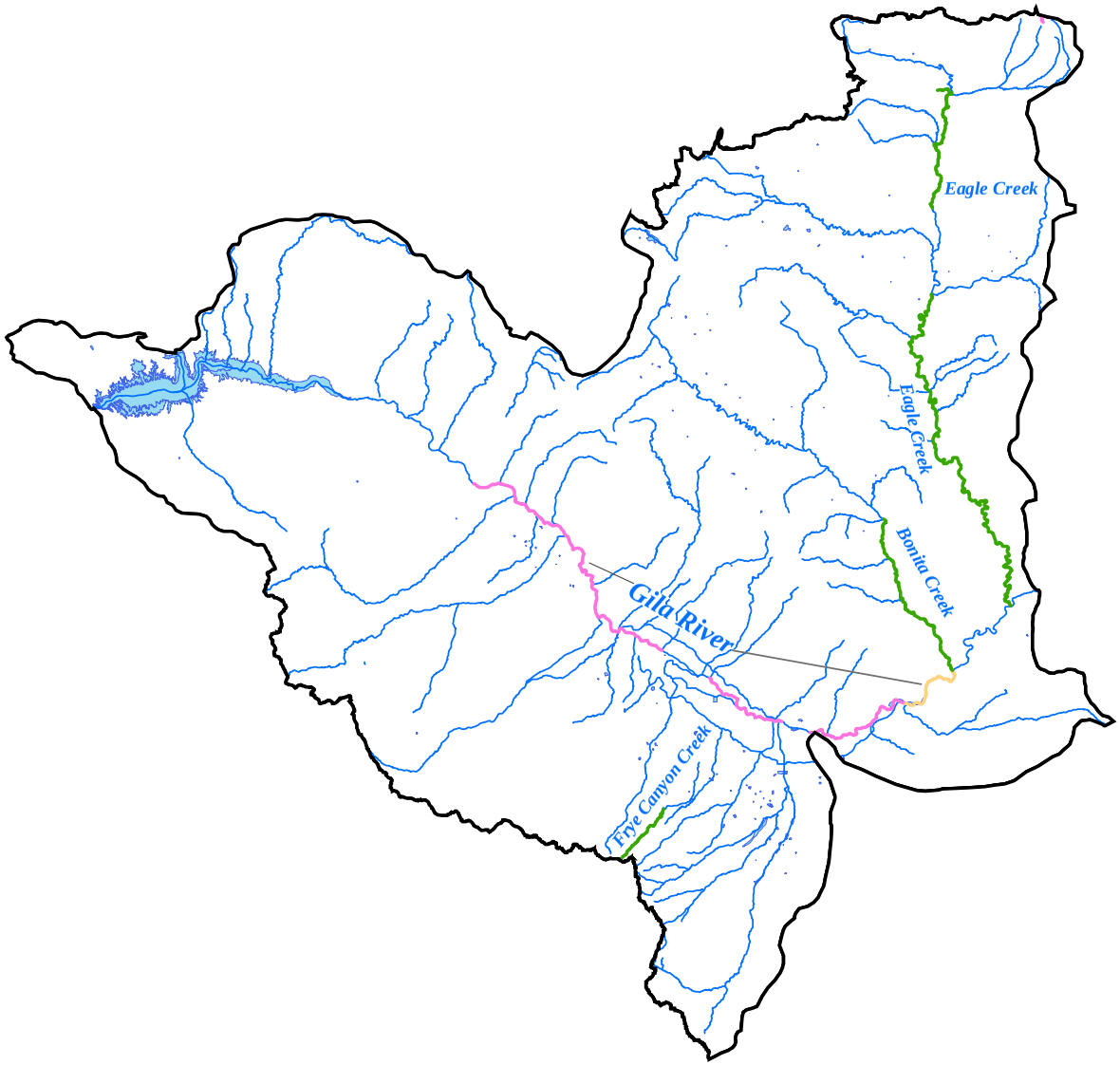


N

0 20 Miles

ADEQ Arizona Department of Environmental Quality

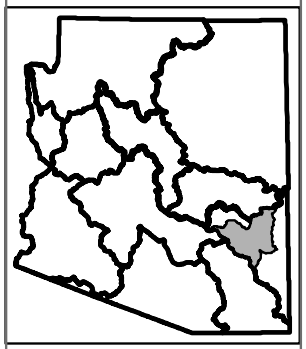
Upper Gila Watershed
HUC 15040005
2012/2014 Assessment for Streams and Lakes



Legend

Assessed Streams - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- HUC Watershed Boundaries
- Lakes
- Streams

Assessed Lakes - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired



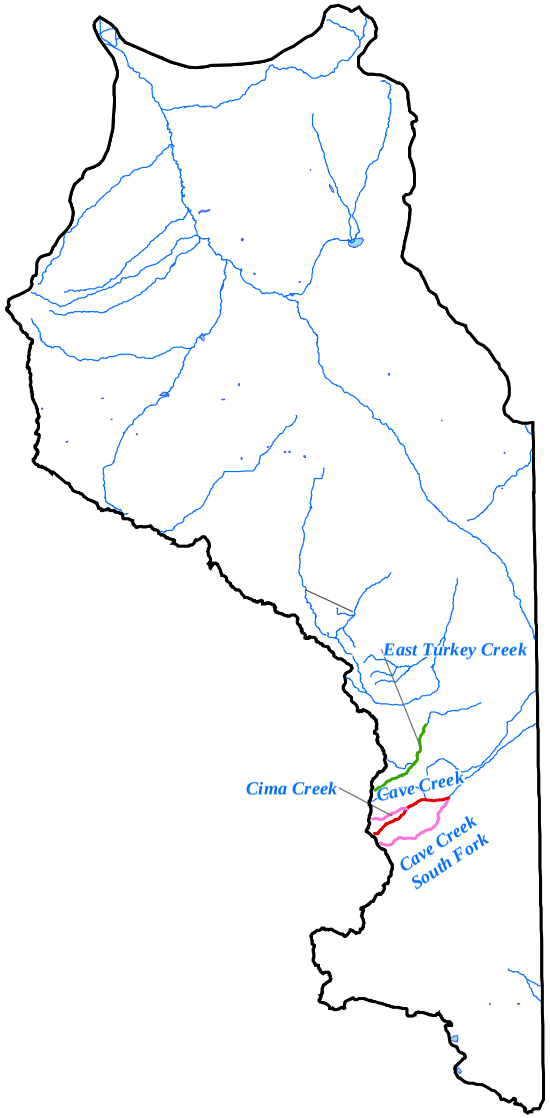
N

ADEQ Arizona Department of Environmental Quality

0 22 Miles

upper gila

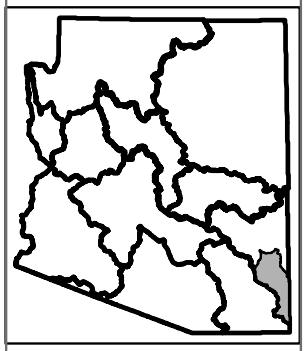
Upper Gila Watershed
HUC 15040006
2012/2014 Assessment for Streams and Lakes



Legend

Assessed Streams - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired
- HUC Watershed Boundaries
- Lakes
- Streams

Assessed Lakes - 2012
ADEQ and EPA Listings
- Attaining
- Inconclusive
- Not Attaining
- EPA Impaired
- Impaired



N

ADEQ Arizona Department of Environmental Quality

0 26 Miles

Blue River

Strayhorse Creek - San Francisco River
15040004-025B
25.4 Miles

Category 5
Impaired

Impairment Status

E. coli (2006/8)

FC - Inconclusive • FBC - Impaired • A&Ww - Inconclusive • AGL - Inconclusive • AGI - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: no samples

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
Above Fritz Ranch	UGBLR011.55	100420	USGS, ADEQ	TMDL, Biocriteria, USGS
Above Gaging Station Near Clifton, AZ	UGBLR008.57	103615	USGS	USGS
Above Oak Creek Near Blue, AZ	UGBLR021.70	103842	USGS	USGS
Above Pat Creek Near Clifton, AZ	UGBLR001.42	103613	USGS	USGS
Above Pigeon Creek Near Clifton, AZ	UGBLR006.45	103614	USGS	USGS
At H U Bar Ranch Near Blue, AZ.	UGBLR019.38	103843	USGS	USGS
At Juan Miller Road Crossing	UGBLR008.19	100398	ADEQ, USGS	Stream Ecosystem Monitoring, Ambient, Fixed Station Network, USGS, Biocriteria
At Mouth Of Horse Canyon Near Clifton, AZ	UGBLR013.61	103616	USGS	USGS

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
At San Francisco River	UGBLR000.84	103612	USGS	USGS
Near Clifton, AZ USGS 09444200	UGBLR008.09	100770	ADEQ, USGS	TMDL, USGS

Metals Samples	Nutrients & Related Samples	Other Samples
None	None	None

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	All designated uses.
Missing Seasonal Distribution	All designated uses
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
High	Collect samples to support TMDL development. Collect more SSC samples during non-storm flow regimes to assess situation. Collect biocriteria samples to assess inconclusive.

Impairment Discussion
Impaired for *E. coli*. Local wateshed group is developing a Watershed improvement plan.

BLUE RIVER

New Mexico border - KP Creek
15040004-026
21.4 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • A&Wc - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	8/6/2009 9	5.71 mg/L	A&Wc is attaining. Non-representative value with low flow, high nutrient values.
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/17/2009	IBI 35	A&Wc is inconclusive with 2 violating IBI scores at 2 sites.
		6/17/2009	IBI 29	
SSC	25 mg/L	8/6/2009	58.8 mg/L	A&Wc is attaining. Exceedance occurred within 48 hours of storm event. Median value did not exceed standard.

Monitoring Summary

Sampling period: 9/22/2008 - 8/6/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ADEQ SITE 10, ABOVE BALKE CROSSING	UGBLR036.37	101189	ADEQ	Ambient
BELOW JACKSON BOX	UGBLR046.35	100419	ADEQ	Ambient
AT COLE FLAT	UGBLR030.24	106506	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(3-12) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(12) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(12-13) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Reassess Biocriteria when the Implementation Procedures are adopted. Good core parameter coverage.

BONITA CREEK

Park Creek - Gila River
15040005-030
14.6 Miles

Category 1
Attaining all uses

DWS - Attaining • FC - Attaining • FBC - Attaining
AGL - Attaining • A&Ww - Attaining

No Exceedances

Monitoring Summary

Sampling period: 9/6/2006-5/13/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE GILA RIVER	UGBON000.17	100185	ADEQ	TMDL
AT LEE'S TRAIL NEAR SOLOMON	UGBON006.41	100421	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-11) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-7)Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(5-12) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), lead (dissolved), manganese, nickel (dissolved), selenium, mercury (dissolved)

Priority	Monitoring Recommendations
Low	Use a lower lab reporting limit for dissolved lead.

CAVE CREEK

Headwaters - South Fork Cave Creek
15040006-852A
7.5 Miles

Category 5
Impaired

IMPAIRMENT STATUS

Selenium (2004)

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • A&Wc - Impaired

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	6/12/2008	6.25 mg/L	A&Wc is inconclusive. 1 exceedance in 4 samples (binomial, 6/12/08 low flow - 0.11 cfs).
		6/18/2009	6.24 mg/L	

Monitoring Summary

Sampling period: 6/12/2008 - 6/18/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE HERB MARTYR CAMPGROUND	UGCAV016.84	101108	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(3-7) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(2-5) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), selenium, mercury (dissolved)

Priority	Monitoring Recommendations
High	Collect additional selenium and dissolved oxygen samples to determine attainment of A&W designate use. Use lower lab reporting limits for dissolved cadmium and dissolved copper.

Impairment Discussion
Remains impaired for selenium (2004). No selenium exceedances in this assessment period. However, the most recent sample had a detection limit issue due to matrix interference.

CAVE CREEK SOUTH FORK

Headwaters - Cave Creek
15040006-849
8.1 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • A&Wc - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 9/9/2008 - 3/11/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CAVE CREEK	UGSCV000.11	101109	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, boron, manganese, copper, lead
Lab Detection Limits Not Low Enough	Cadmium (dissolved), selenium

Priority	Monitoring Recommendations
Low	Use a lower lab reporting limit for dissolved cadmium.

CIMA CREEK

Headwaters - Cave Creek
15040006-862
3.1 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive
A&Wc - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 9/9/2008 - 9/9/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CAVE CREEK	UGCIM000.10	106903	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(1) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(1) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, nitrogen, phosphorus, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
Low	Use lower lab reporting limits for dissolved metals (cadmium, copper, and lead).

COLEMAN CREEK

Headwaters - Campbell Blue
15040004-040
7.3 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Attaining • AGL - Attaining
A&Wc - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/16/2009	IBI 50	A&Wc is inconclusive.

Monitoring Summary

Sampling period: 9/22/2008 - 6/16/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW TURKEY CREEK	UGCOL003.48	100523	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-4) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Biocriteria
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), pH, selenium

Priority	Monitoring Recommendations
Medium	Collect an additional macroinvertebrate sample to verify the bioassessment result when Biocriteria Implementation Plan is in place. Good core parameter coverage with few samples.

EAGLE CREEK

Headwaters - tributary at 33
15040005-028A
11.8 Miles

Category 2
Attaining some uses

DWS - Attaining • FC - Attaining • FBC - Attaining
AGI - Attaining • AGL - Attaining • A&Wc - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	6/15/2009	IBI 43	A&Wc is inconclusive.

Monitoring Summary

Sampling period: 8/26/2008 - 6/15/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE HONEYMOON CAMPGROUND	UGEAG056.85	100535	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(2-) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(412) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Copper (dissolved)
Missing Seasonal Distribution	Copper (dissolved)
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Reassess Biocriteria when the Implementation Procedures are adopted. Collect all core parameters to represent at least 3 seasons during an assessment period.

EAGLE CREEK

Sheep Wash - Gila River
15040005-025
41.8 Miles

Category 2
Attaining some uses

DWS - Inconclusive • FC - Attaining • FBC - Inconclusive
AGI - Attaining • AGL - Attaining • A&Ww - Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 ml, SSM	8/7/2007	1986 cfu/100 mL	FBC is inconclusive with 1 exceedance in the last 3 years of monitoring (7/08-6/11). (8/7/07 storm-related).
		8/27/2008	660 cfu/100 mL	
Lead	15 ug/L (DWS) 30 ug/L (FBC)	8/7/2007	32 ug/L	DWS and FBC are attaining. 1 exceedance in 12 samples (binomial).
Manganese	980 ug/L	8/7/2007	1900 ug/L	DWS is inconclusive. 1 exceedance in 8 samples (binomial).
SSC	80 mg/L	8/7/2007	1420 mg/L	A&Ww is attaining with 1 (storm-related) exceedance. No median exceedances.

Monitoring Summary

Sampling period: 2/15/2007 - 4/29/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW PUMPING STATION	UGEAG011.51	104959	ADEQ	TMDL
DOWN STREAM FROM MC MORAN PUMPING STATION	UGEAG011.09	106582	ADEQ	Ambient
DOWNSTREAM FROM HORSESHOE GULCH	UGEAG015.23	106583	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-16) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-12) Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(12-16) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Manganese, *E. coli*
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), lead (dissolved), mercury (dissolved), nickel (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect *E. coli* and manganese samples due to exceedances.

EAST TURKEY CREEK

Headwaters - tributary at 31
15040006-837A
7.8 Miles

Category 1
Attaining all uses

FC - Attaining • FBC - Attaining • AGL - Attaining
A&Wc - Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	6/16/2009	6.27 mg/L	A&Wc is attaining. Low dissolved oxygen due to a low flow (0.01 cfs).

Monitoring Summary

Sampling period: 9/9/2008 - 6/16/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FOREST ROAD #42	UGETK011.80	100545	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(3-4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
Low	Use lower lab reporting limits for dissolved copper and cadmium. Lab reporting limits for dissolved copper and dissolved cadmium were higher than the A&Wc chronic standards in 2 and 4 samples, respectively.

FRYE CANYON CREEK

Headwaters - Frye Mesa Reservoir
15040005-988A
5 Miles

Category 2
Attaining some uses

DWS - Attaining • FC - Attaining • FBC - Attaining
AGL - Attaining • A&Wc - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Biocriteria	IBI ≥ 52 attaining IBI 46 - 51 inconclusive IBI ≤ 45 violating	4/27/2009	IBI 38	A&Wc is inconclusive.

Monitoring Summary

Sampling period: 8/25/2008 - 4/27/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT FOREST ROAD #36 FIRST CROSSING	UGFRY009.52	100720	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(2-4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, biocriteria

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Copper (dissolved)
Missing Seasonal Distribution	Copper (dissolved)
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), zinc (dissolved), mercury (dissolved) , selenium

Priority	Monitoring Recommendations
Medium	Reassess Biocriteria when the Implementation Procedures are adopted. Use lower lab reporting limits for dissolved metals (lead, copper, cadmium, and zinc).

GILA RIVER

Apache Creek - Skully Creek
15040002-002
6.4 Miles

Category 5
Impaired

IMPAIRMENT STATUS

E. coli (2010)

FC - Inconclusive • FBC - Impaired • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	2/16/2007	411 cfu/100 mL	FBC remains impaired (2010). No exceedances in last three years (7/08-6/11) of this assessment period.
		3/26/2007	344 cfu/100 mL	
		6/28/2007	517 cfu/100 mL	
		8/8/2007	3629 cfu/100 mL	
		12/10/2007	435 cfu/100 mL	
Lead	15 ug/L	3/26/2007	28 ug/L	FBC is inconclusive with 2 exceedances in 8 samples (binomial)
		8/8/2007	28 ug/L	
SSC	80 mg/L	2/16/2007	935 mg/L	A&Ww is attaining with 0 median exceedances. Only one single sample exceedance (2/27) not excluded from median calculation due to storm flow within 48 hours.
		2/27/2007	202 mg/L	
		3/26/2007	1130 mg/L	
		8/8/2007	3860 mg/L	
		12/10/2007	351 mg/L	

Monitoring Summary

Sampling period: 2/16/2007 - 12/10/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW APACHE CREEK	UGGLR485.91	104960	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(2-8) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-4) Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(5-8) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect *E. coli* samples to support TMDL development. Collect lead and suspended sediment samples due to exceedances. Several core parameters need seasonal coverage.

Impairment Discussion
Remains impaired for *E. coli* (2010) with additional exceedances in lead and suspended sediment. This reach falls within the larger Gila River E. coli TMDL. No new data since last assessment.

GILA RIVER

Bonita Creek - Yuma Wash
15040005-022
5.8 Miles

Category 4A/5
Not Attaining/Impaired

Lead (2010), E. coli (2004) and SSC (EPA 2004)

IMPAIRMENT STATUS

FC - Attaining • FBC - Not Attaining • AGI - Attaining
AGL - Attaining • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Copper[d]	8.2 ug/L	8/16/2006	9 ug/L	A&Ww chronic is inconclusive. Only 1 exceedance in the assessment period.
E. coli	235 cfu/100 ml, SSM	8/16/2006	4000 cfu/100 mL	FBC remains not attaining. No new data since last assessment.
		9/6/2006	302 cfu/100 mL	
		2/14/2007	816.4 cfu/100 mL	
		3/25/2007	435.2 cfu/100 mL	
		9/12/2007	4100 cfu/100 mL	
		12/8/2007	1500 cfu/100 mL	
		9/18/2008	390 cfu/100 mL	
Lead	15 ug/L (FBC) 100 ug/L (AGL)	8/16/2006	95.6 ug/L	FBC remains impaired with 5 exceedances in 17 samples (binomial). No new data since last assessment. AGL is attaining with only 1 exceedance in 17 samples (binomial).
		2/14/2007	22 ug/L	
		8/6/2007	56 ug/L	
		9/12/2007	159 ug/L	
		12/5/2007	26.95 ug/L	
SSC	80 mg/L	8/16/2006	5410 mg/L	A&Ww is inconclusive. Only 1 of 2 annual median values exceeded the standard.
		2/14/2007	1090 mg/L	
		3/1/2007	218 mg/L	
		3/25/2007	470 mg/L	
		8/6/2007	5170 mg/L	
		9/12/2007	7070 mg/L	
		10/25/2007	82 mg/L	
		11/13/2007	297 mg/L	
		12/8/2007	2013 mg/L	
		9/18/2008	610 mg/L	

Parameter	Applicable Standard	Date	Result	Designated use support comments
Bottom deposits	50%	5/15/2007	91%	A&Ww is inconclusive with 1 exceedance in the assessment period (value is median of 2 values on consecutive days).

Monitoring Summary

Sampling period: 8/16/2006 - 12/3/2008

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT HEAD OF SAFFORD VALLEY	UGGLR448.61	100729	ADEQ, USGS	TMDL, USGS
ABOVE BONITA CREEK	UGGLR452.43	100814	ADEQ	TMDL
BELOW RAIL END CANYON	UGGLR451.46	105039	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(3-34) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(3-22) Ammonia, nitrite, nitrite/nitrate, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(18-34) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids, bottom deposits

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Copper (dissolved), SSC, bottom deposits
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Arsenic, cadmium (dissolved), lead (dissolved), mercury (dissolved), selenium, arsenic (dissolved), copper (dissolved), mercury, nickel (dissolved), antimony, antimony (dissolved), beryllium, beryllium (dissolved)

Priority	Monitoring Recommendations
High	Collect additional dissolved copper and bottom deposits samples due to exceedances.

Impairment Discussion
Remains not attaining for *E. coli* and SSC (2004) and impaired for lead (2010). *E. coli* TMDL completed int 2011. SSC TMDL completed 2013.

GILA RIVER

New Mexico border - Bitter Creek
15040002-004
16.3 Miles

Category 4A
Not attaining

IMPAIRMENT STATUS

E. coli and SSC (2006/8)

FC - Inconclusive • FBC - Not Attaining • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Not Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	9/6/2006	386 cfu/100 mL	FBC remains not attaining. No new data since last assessment.
		2/16/2007	411 cfu/100 mL	
		8/8/2007	3629 cfu/100 mL	
		11/15/2007	548 cfu/100 mL	
		12/10/2007	411 cfu/100 mL	
Lead	15 ug/L	3/26/2007	14.5 ug/L	FBC is inconclusive with 2 exceedances in 8 samples (binomial).
		8/8/2007	49 ug/L	
SSC	80 mg/L	2/16/2007	416 mg/L	A&Ww is not attaining (2006/8). All single sample exceedances except 2/27 & 5/23 were excluded due to storm flow. No new data since last assessment.
		2/27/2007	125 mg/L	
		3/27/2007	920 mg/L	
		8/8/2007	5580 mg/L	
		12/10/2007	217 mg/L	

Monitoring Summary

Sampling period: 9/6/2006 - 12/10/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW NEW MEXICO BORDER, NEAR DUNCAN	UGGLR505.96	100808	ADEQ	SPS
BELOW DUNCAN WWT PONDS	UGGLR498.51	104637	ADEQ	SPS
AT DUNCAN	UGGLR501.45	103587	USGS	USGS
AT FRANKLIN IRRIGATION DISTRICT P.O.D. NM	UGGLR515.55	105287	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(3-14) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-7) Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(8-16) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Selenium, lead
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect lead and selenium samples due to exceedances. A number of core parameters need seasonal distribution.

Impairment Discussion
Remains not attaining for *E. coli* and SSC (2006/8). *E. coli* TMDL completed in 2011. SSC TMDL completed 2013. No new data since last assessment.

GILA RIVER

Peck Wash - Underwood Wash
15040005-014
4.9 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 ml, SSM	8/23/2006	5794 cfu/100 mL	FBC is inconclusive. 2 exceedances, both storm related, outside last 3 year window (7/08-6/11).
		9/6/2006 8	1109 cfu/100 mL	

Monitoring Summary

Sampling period: 8/23/2006 - 10/4/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE PECK WASH	UGGLR423.82	103620	ADEQ	SPS

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(1-3) Dissolved oxygen, *E. coli*, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), boron, copper, lead, manganese, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead, boron, manganese, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect additional *E. coli* samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

GILA RIVER

Skully Creek - San Francisco
15040002-001
15.2 Miles

Category 5
Impaired

IMPAIRMENT STATUS

E. coli (2010)

FC - Inconclusive • FBC - Impaired • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	9/6/2006	6131 cfu/100 mL	FBC remains impaired. No new exceedances in last three years of this assessment period (6/08-6/11).
		2/15/2007	548 cfu/100 mL	
		3/26/2007	770 cfu/100 mL	
		8/7/2007	3629 cfu/100 mL	
		12/9/2007	921 cfu/100 mL	
Lead	15 ug/L	2/15/2007	35 ug/L	FBC is inconclusive with 4 exceedances in 8 samples (binomial)
		3/26/2007	31 ug/L	
		8/7/2007	74 ug/L	
		12/9/2007	19.5 ug/L	
SSC	80 mg/L	2/15/2007	1540 mg/L	A&Ww is inconclusive. All single sample exceedances except for 2/27 excluded from median calculation due to storm event within 48 hours of sampling. Insufficient number of samples left to calculate a median.
		2/27/2007	540 mg/L	
		3/26/2007	1470 mg/L	
		7/11/2007	512.5 mg/L	
		8/7/2007	1770 mg/L	
		12/9/2007	859.5 mg/L	

Monitoring Summary

Sampling period: 9/6/2006 - 12/9/2007

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE SAFFORD BRIDGE	UGGLR471.49	100809	ADEQ	SPS
BELOW GILLARD HOT SPRINGS	UGGLR466.91	105459	ADEQ	TMDL
ABOVE GILLARD HOT SPRINGS	UGGLR467.02	105458	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(2-10) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-6) Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-11) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Lead
Missing Core Parameters	None
Missing Seasonal Distribution	Zinc (dissolved), cadmium (dissolved), boron, manganese, copper, mercury
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect *E. coli* samples to support TMDL development. Collect more lead and suspended sediment samples due to exceedances. Several core parameters need seasonal coverage.

Impairment Discussion
Remains impaired for *E. coli* (2010) with exceedances in lead and suspended sediment. This reach falls within the larger Gila River *E. coli* TMDL. No new data since last assessment.

GILA RIVER

Stockton Wash - Watson Wash
15040005-017
7.0 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	8/22/2006	1.47 mg/L	A&Ww is inconclusive. Only 1 exceedance in 2 samples (binomial).
E. coli	235 cfu/100 ml, SSM	8/22/2006	1915 cfu/100 mL	FBC is inconclusive. 2 exceedances, both storm related, outside last 3 year window (7/08-6/11).
		9/6/2006	910 cfu/100 mL	

Monitoring Summary

Sampling period: 8/22/2006 - 9/6/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW THATCHER BRIDGE	UGGLR428.32	104624	ADEQ	SPS
BELOW SAFFORD WWTP	UGGLR429.83	104625	ADEQ	SPS

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(2-4) Dissolved oxygen, *E. coli*, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen, *E. coli*
Missing Core Parameters	Zinc (dissolved), cadmium (dissolved), copper (dissolved), boron, manganese, copper, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, *E. coli*, cadmium (dissolved), copper (dissolved), copper, lead, pH, boron, manganese, lead
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect additional *E. coli* and dissolved oxygen samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

GILA RIVER

Underwood Wash - Bylas Salt
15040005-012
9.2 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	6.0 mg/L	8/23/2006	5.74 mg/L	A&Ww is inconclusive. Only 1 exceedance in 1 sampling event (binomial).
E. coli	235 cfu/100 mL, SSM	8/23/2006	1725 cfu/100 mL	FBC is inconclusive. Only 1 single sample maximum exceedance. Flood event in progress at time of sampling.

Monitoring Summary

Sampling period: 8/23/2006 - 8/23/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
AT FT THOMAS RIVER ROAD	UGGLR407.48	104622	ADEQ	SPS
BELOW CARLAND WASH	UGGLR401.85	103619	ADEQ	SPS

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(2) Dissolved oxygen, *E. coli*, pH

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	Dissolved oxygen, *E. coli*
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), lead, *E. coli*, copper, boron, manganese
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), lead, *E. coli*, copper, boron, manganese
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect additional *E. coli* and dissolved oxygen samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

GILA RIVER

Yuma Wash - San Simon Creek
15040005-020
7.8 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGI - Inconclusive
AGL - Inconclusive • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	8/22/2006	2169 cfu/100 mL	FBC is inconclusive. 2 exceedances, both storm related, outside last 3 year window (7/08-6/11).
		9/5/2006	1935 cfu/100 mL	

Monitoring Summary

Sampling period: 8/22/2006 - 10/3/2006

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NEAR TIDWELL WASH	UGGLR438.78	103624	USGS	USGS

Metal Samples	Nutrients & Related Samples	Other Samples
(0) None	(0) None	(1-3) Dissolved oxygen, *E. coli*, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), copper, lead, boron, manganese
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, copper, lead, boron, manganese
Lab Detection Limits Not Low Enough	None

Priority	Monitoring Recommendations
Medium	Collect additional *E. coli* samples due to exceedances. Collect core parameters to represent at least 3 seasons during an assessment period.

KP CREEK

Headwaters - Blue River
15040004-029
12.1 Miles

Category 3
Inconclusive

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive
A&Wc - Inconclusive

No Exceedances

Monitoring Summary

Sampling period: 9/24/2008 - 7/30/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW KP CIENEGA	UGKPK011.18	100888	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-3) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3) Dissolved oxygen, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Zinc (dissolved), cadmium (dissolved), copper (dissolved), *E. coli*, lead
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, copper
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium, zinc (dissolved)

Priority	Monitoring Recommendations
Low	Collect core parameters to in include at least 3 samples distributed over 3 seasons.

LANPHIER CANYON CREEK

Headwaters - Blue River
15040004-500
7.0 Miles

Category 1
Attaining all uses

FC - Attaining • FBC - Attaining • AGL - Attaining
A&Wc - Attaining

No Exceedances

Monitoring Summary

Sampling period: 9/23/2008 - 7/29/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE FOREST ROAD #51	UGLAN000.60	100579	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-4) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), selenium

Priority	Monitoring Recommendations
Low	Good core parameter coverage for reach that was 'inconclusive' in last assessment.

LUNA LAKE

15040004-0840
119.7 Acres

Category 4A
Not attaining

FC - Inconclusive • FBC - Inconclusive • AGL - Inconclusive
A&Wc - Not Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
pH	9.0 SU	10/28/2010	9.4 SU	AGL, A&Wc and FBC are inconclusive with 1 exceedance in 2 samples (binomial).
Ammonia	0.309 ug/L	8/6/2008	0.5 ug/L	A&Wc is not attaining.

Monitoring Summary

Sampling period: 10/28/2010 - 5/11/2011

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
MID LAKE	UGLUN-B	100979	ADEQ	CLP
AT DAM	UGLUN-A	100036	ADEQ	CLP

Metal Samples	Nutrients & Related Samples	Other Samples
(2-4) Arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, selenium, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4) Dissolved oxygen, pH, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	pH
Missing Core Parameters	*E. coli*
Missing Seasonal Distribution	Zinc (dissolved), dissolved oxygen, pH, cadmium (dissolved), copper (dissolved), *E. coli*, copper
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), lead (dissolved), mercury (dissolved), arsenic, copper, zinc

Priority	Monitoring Recommendations
High	Collect ammonia samples in support of TMDL development. Collect more *E. coli* and all core parameters to cover 3 seasons. Many parameters with detection limit issues.

Impairment Discussion
TMDL completed in 2000. Recent ammonia data indicate an impairment but lake was placed in Category 4A as the sources causing the ammonia exceedances are the same as those causing low dissolved oxygen and high pH values.

SAN FRANCISCO RIVER

Blue River - Limestone Gulch
15040004-003
18.7 Miles

Category 5
Impaired

IMPAIRMENT

E. coli (2006/8)

STATUS

FC - Attaining • FBC - Impaired • AGI - Attaining
AGL - Attaining • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	9/5/2006	602 cfu/100 mL	FBC remains impaired. 2 exceedances in last 3 years. (10/15 sample storm related) .
		10/15/2008	640 cfu/100 mL	
SSC	80 mg/L	10/15/2008	210 mg/L	A&Ww is inconclusive with 0 exceedances in 3 samples.

Monitoring Summary

Sampling period: 9/5/2006 - 6/25/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE CLIFTON, AZ	UGSFR019.04	100708	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4-6) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Beryllium, cadmium (dissolved), lead (dissolved), manganese, mercury (dissolved)

Priority	Monitoring Recommendations
High	Collect more *E. coli* samples to support TMDL development.

Impairment Discussion
Remains impaired for *E. coli* (2006/8). No new data since last assessment.

SAN FRANCISCO RIVER

Headwaters - New Mexico Border
15040004-023
13.1 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Attaining • AGI - Attaining
AGL - Attaining • A&Wc - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
Dissolved oxygen	7.0 mg/L	6/18/2009	3.27 mg/L	A&Wc is attaining. Low dissolved oxygen measured in pooled water in spatially intermittent reach.
SSC	25 mg/L	6/18/2009	37.5 mg/L	A&Wc is inconclusive. 1 single sample exceedance in assessment period. Insufficient samples to calculate median (minimum 4 samples).

Monitoring Summary

Sampling period: 11/17/2008 - 6/18/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
ABOVE LUNA LAKE	UGSFR151.22	100381	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(3) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(3) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	Copper (dissolved)
Missing Seasonal Distribution	Copper (dissolved)
Lab Detection Limits Not Low Enough	Cadmium (dissolved), manganese, selenium

Priority	Monitoring Recommendations
Medium	Collect SSC samples to determine A&Wc status. Collect more dissolved copper samples in 3 different seasons to complete core parameter coverage.

SAN FRANCISCO RIVER

Limestone Gulch - Gila River
15040004-001
12.8 Miles

Category 5
Impaired

E. coli (2010)

IMPAIRMENT STATUS

FC - Attaining • FBC - Not Attaining • AGI - Attaining
AGL - Attaining • A&Ww - Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	9/5/2006	1020 cfu/100 mL	FBC remains impaired. No new data since last assessment.
		8/7/2007	3629 cfu/100 mL	
		12/9/2007	816 cfu/100 mL	
		8/27/2008	620 cfu/100 mL	
Lead	15 ug/L	8/7/2007	22 ug/L	FBC is attaining with 1 exceedance in 12 samples (binomial).
SSC	80 mg/L	3/27/2007	228 mg/L	A&Ww is attaining with no median exceedances.
		8/7/2007	1590 mg/L	
		12/9/2007	593 mg/L	
		8/27/2008	358 mg/L	

Monitoring Summary

Sampling period: 9/5/2006 - 6/25/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
BELOW CLIFTON, AZ	UGSFR006.42	100382	ADEQ	TMDL
UPSTREAM OF MORENCI GULCH	UGSFR006.08	106562	ADEQ	Ambient
AT LIMESTONE GULCH NEAR CLIFTON, AZ	UGSFR012.54	103604	ADEQ	TMDL

Metal Samples	Nutrients & Related Samples	Other Samples
(2-12) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, zinc	(1-8) Ammonia, nitrite, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(9-15) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Arsenic, arsenic (dissolved), cadmium (dissolved), copper (dissolved), *E. coli*, lead (dissolved), mercury (dissolved), nickel (dissolved), selenium

Priority	Monitoring Recommendations
High	Collect more *E. coli* samples to support TMDL development. Good core parameter coverage.

Impairment Discussion
Remains impaired for *E. coli* (2010). No new data since last assessment.

SAN FRANCISCO RIVER

New Mexico border - Blue River
15040004-004
20.9 Miles

Category 2
Attaining some uses

FC - Attaining • FBC - Inconclusive • AGI - Attaining
AGL - Attaining • A&Ww - Inconclusive

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
E. coli	235 cfu/100 mL, SSM	10/15/2008	980 cfu/100 mL	FBC is inconclusive with 1 storm-related exceedance in 4 samples.
SSC	80 mg/L	10/15/2008	241 mg/L	A&Ww is inconclusive - not enough samples to calculate median. Exceedance occurred within 48 hours of local storm event.

Monitoring Summary

Sampling period: 10/15/2008 - 5/12/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
NEAR MARTINEZ RANCH	UGSFR034.57	100834	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(4) Antimony, arsenic, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	*E. coli*, SSC
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Lead (dissolved), manganese, mercury (dissolved), cadmium (dissolved), selenium

Priority	Monitoring Recommendations
Medium	Collect more *E. coli* and SSC samples to determine FBC and A&W status. Good core parameter coverage.

TURKEY CREEK (TRY)

Headwaters - Campbell Blue
15040004-060
4.7 Miles

Category 1
Attaining all uses

FC - Attaining • FBC - Attaining • AGL - Attaining
A&Wc - Attaining

Exceedances

Parameter	Applicable Standard	Date	Result	Designated use support comments
SSC	25 mg/L	6/17/2009	27 mg/L	A&Wc is attaining with no median exceedances.

Monitoring Summary

Sampling period: 9/22/2008 - 6/17/2009

Site Name(s)	Site ID #	DEQ #	Sampling Agency	Purpose
1.5 MI US FROM CONFL W/CAMPBELL BLUE CRK	UGTRY001.56	106507	ADEQ	Ambient

Metal Samples	Nutrients & Related Samples	Other Samples
(1-4) Antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, zinc	(4) Ammonia, nitrite/nitrate, nitrogen, phosphorus, total Kjeldahl nitrogen	(3-4) Dissolved oxygen, *E. coli*, pH, SSC, total dissolved solids

Data Gaps and Monitoring Needs

Exceedances Needing More Samples to Assess	None
Missing Core Parameters	None
Missing Seasonal Distribution	None
Lab Detection Limits Not Low Enough	Cadmium (dissolved), copper (dissolved), selenium

Priority	Monitoring Recommendations
Low	Good core parameter coverage with few samples.

Verde Watershed

Watershed Description

This watershed is defined by the Verde River drainage that flows into the Salt River, including Big Chino Wash and its tributaries. This 6,624 square mile watershed has an approximate population of 153,000 people (2000 census), but is growing rapidly. Although this is only 3% of the state population, several communities are located in this watershed: Payson, Sedona, Cottonwood, Verde Valley, Prescott, and the southern outskirts of Flagstaff. Land ownership is 65% federal, 23% private, 10% state, and 2% tribal. Primary land uses are open range grazing, irrigated agriculture, recreation, forestry, and some mining.

Elevations range from more than 12,000 feet (above sea level) in the San Francisco Mountains to about 1,600 feet as the Verde River flows into the Salt River. The watershed is split between warmwater communities below 5,000 feet and coldwater communities above 5,000 feet where perennial waters exist.

Water Resources

The Verde Watershed receives slightly more precipitation than most watersheds in this state, with some areas receiving about 20 inches of rain and 3 inches of snow. Therefore, the Verde River and many of its tributaries are perennial waters.

An estimate of surface water resources in the Verde Watershed is provided in the following table. Waters on Tribal lands are not assessed by ADEQ; therefore, those statistics are shown separately.

Estimated Surface Water Resources in the Verde Watershed

	Perennial	Intermittent	Ephemeral
Stream miles	450	2,115	5,990
	Perennial	Non-perennial	
Lake acres	4,603	3,636	

Additional Surface Water Resources located on Tribal Land – Not Assessed

	Perennial	Intermittent	Ephemeral
Stream miles	15	5	230
	Perennial	Non-perennial	
Lake acres	6	0	

Ambient monitoring focuses on perennial waters; however, special investigations may identify water quality problems on intermittent and even ephemeral waters. Estimated miles and acres are based on USGS digitized hydrology at 1:100,000 and have been rounded to the nearest 5 miles or 5 acres.

Assessments

The Verde Watershed can be separated into the following drainage areas (subwatersheds):

15060201 Big Chino Wash Drainage Area
15060202 Upper Verde River Drainage Area
15060203 Lower Verde River Drainage Area

These drainage areas and the surface waters assessed as “attaining” or “impaired” are illustrated on the following watershed map. Methods used to complete these assessments are described in the “Surface Water Assessment Methods and Technical Support” document.